

## **Everyday Math II**

### **Probability**

Probability is the chance of an event happening. If you toss a coin, there are two possibilities. The coin may land showing its head or it may land showing its tail. The probability of an event is written as a fraction.

1. The Greenport Telephone book contains 75000 names. Fifteen Smiths are listed in the phone book. In a random selection from Greenport telephone numbers, what is the probability that the first number selected will belong to a Smith?
2. Liz works as a cashier in a grocery store. At the end of the day she had 12 quarters, 20 dimes, 18 nickels, and 30 pennies. She put all the coins in a bag.
  - a. What is the probability that the first coin she takes from the bag will be a dime?
  - b. What is the probability that the first coin she takes from the bag will be a penny?
  - c. What is the probability that the first coin she takes from the bag will be either a quarter or a nickel?
3. Carlos received a shipment of sweaters to sell in his store. The shipment contained 10 small size sweaters, 15 medium sweaters, and 8 large sweaters. What is the probability that the first sweater he takes from the box will be a medium size?
4. A carton contains 8 cans of tomato sauce and 6 cans of green beans.
  - a. What is the probability that the first can taken from the carton will be a can of tomato sauce?
  - b. If the first can taken out is tomato and the second is green beans, what is the probability that the next can taken from the box will be green beans?
5. Jose Acevedo, his wife Beatrice, and their son Felipe each bought a ticket for a chance to win a color TV. Altogether 540 tickets were sold.
  - a. What is the probability that Jose will win the television?
  - b. What is the probability that one of the Acevedos will win the TV set?